

II. Rejection of claims 1-22 under 35 U.S.C. § 103(a)

The Examiner maintains the rejection of claims 1-22 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,540,791 to Dias ("Dias"), in view of U.S. Patent No. 6,260,556 to Legrand et al. ("Legrand"), and further in view of U.S. Patent No. 6,423,306 to Caes et al. ("Caes"). See Office Action, p. 2. Specifically, the Examiner alleges that Dias teaches a hair bleaching composition comprising polydecene, nonionic amphiphilic polymers, peroxygenated salt, an alkaline agent, and surfactants as recited in the rejected claims. See *id.* at 2-3. The Examiner relies on Legrand and Caes for the disclosure of specific peroxygenated salts, hydrogen peroxide, and gelling agents that are not disclosed in Dias. See *id.* at 3-4. The Examiner concludes that "[i]t would have been obvious to a person of ordinary skill in the art at the time the invention was made to make an anhydrous paste comprising a peroxygenated salt, an alkaline agent, a polydecene, and a gelling agent, as taught by Dias, in view of Legrand, et al., [and] further in view of Caes, et al." *Id.* at 5. Applicant respectfully disagrees and traverses this rejection for reasons of record and for the following additional reasons.

Several basic factual inquiries must be made to determine whether the claims of a patent application are obvious under 35 U.S.C. § 103. These factual inquiries, set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), require the Examiner to:

- (1) Determine the scope and content of the prior art;
- (2) Ascertain the differences between the prior art and the claims in issue;

- (3) Resolve the level of ordinary skill in the pertinent art; and
- (4) Evaluate evidence of secondary considerations.

The obviousness or non-obviousness of the claimed invention is then evaluated in view of the results of these inquiries. *Graham*, 383 U.S. at 17-18, 148 USPQ 467; *see also KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007) and M.P.E.P. § 2141. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." M.P.E.P. § 2142 (citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)); *see also KSR*, 127 S. Ct. at 1741, 82 USPQ2d at 1396 (quoting the Federal Circuit statement with approval).

Exemplary rationales that may support a conclusion of obviousness include, *inter alia*, "simple substitution of one known element for another to obtain predictable results," or "some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention." M.P.E.P. § 2143 (emphasis added). "To reach a proper determination under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention 'as a whole' would have been obvious at that time to that person." M.P.E.P. § 2142.

Applicant maintains that in light of the above-cited guidance from the M.P.E.P., the Examiner has failed to satisfy the initial burden of establishing a *prima facie* case of

obviousness. Applicant thus respectfully submits that the Examiner's allegation of record that it would have been obvious for a person of ordinary skill in the art at the time the invention was made to have formulated an anhydrous paste as presently claimed lacks merit. Specifically, the Examiner has provided "mere conclusory statements" and has failed to articulate "reasoning with some rational underpinning" for why one of ordinary skill would choose to modify Dias to arrive at the presently claimed anhydrous paste in view of the reasons of record and the following remarks in response to the Examiner's arguments as set forth on pages 6-9 of the Office Action.

1. Applicant has argued on record that Dias teaches away from an anhydrous product having a water content less than 1% by weight relative to the total weight of the paste as currently recited in the claims. In response, the Examiner combines various disclosures in Dias and asserts that "Dias discloses a water content as low as 2.5% by weight of the composition." See Office Action, p. 6. Considering this alleged lower limit of water content, the Examiner relies on *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) and refers to M.P.E.P. § 2144.05, concluding that "[a] prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties." *Id.*

As an initial matter, a water content of even 2.5% does not make a composition anhydrous, as recited by the present claims.

Furthermore, the facts and holding of *Titanium Metals* do not apply to the present case. In *Titanium Metals*, the Federal Circuit held as proper a rejection of a claim directed to an alloy of "having 0.8% nickel, 0.3% molybdenum, up to 0.1% iron, balance

titanium” as obvious over a reference disclosing alloys of 0.75% nickel, 0.25% molybdenum, balance titanium and 0.94% nickel, 0.31% molybdenum, balance titanium. *Titanium Metals*, 778 F.2d at 783, 227 USPQ at 779; M.P.E.P. § 2144.05. Such a narrow range, and such a small difference in ranges is not present in the instant case. “[I]f the reference’s disclosed range is so broad as to encompass a very large number of possible distinct compositions, this might present a situation analogous to the obviousness of a species when the prior art broadly discloses a genus.” M.P.E.P. § 2144.05 (citing *In re Harris*, 409 F.3d 1339, 74 USPQ2d 1951 (Fed. Cir. 2005); see also *In re Baird*, 16 F.3d 380, 29 USPQ2d 1550 (Fed. Cir. 1994); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992); MPEP § 2144.08.

Here, Dias discloses a very broad range of diluent level of “from about 5% to about 99.98%.” Dias, col. 45, line 16. Even such a broad disclosure fails to include the presently claimed range of the water content as recited in the rejected claims. Dias discloses formulations with high amounts of water. See *id.*, col. 49-52. Moreover, Dias makes no mention of anhydrous pastes. Therefore, it would be improper to consider the presently claimed water-content range of less than 1% to be obvious over the very broad range disclosed in Dias.

2. In response to Applicant’s argument that the amount range of the claimed polydecene is not obvious since the claimed range does not overlap with the range of polydecene disclosed in Dias, the Examiner, on record, invoked *In re Woodruff*, alleging that the applicant must show that the claimed range is critical. Office Action of April 23, 2007, p. 6. Applicant maintains that the Examiner’s reliance on *In re Woodruff* is

improper because the range of polydecene in Dias does not overlap with the instantly claimed range.

Specifically, in *Woodruff*, the court determined that the claimed range ("above 5%") overlapped the range disclosed in the prior art reference ("about 1-5%"), because "about 1-5%" is slightly above 5%; and thus held that the applicant must show that the particular range is critical. *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990); see also MPEP § 2144.05(I).

Here, however, there is no need to make such a showing because there is no overlap.

Nevertheless, the Examiner asserts that the excerpt from *Woodruff* in question was taken from MPEP [§] 2144.05 (III) . . . not MPEP [§] 2144.05 (I)." Office Action, p. 7.

Applicant respectfully submits that the first sentence in section 2144.05(III) of the MPEP states, "[a]pplicants can rebut a *prima facie* case of obviousness based on overlapping ranges by showing the criticality of the claimed range." M.P.E.P. § 2144.05 (III) (citing *Woodruff*) (emphasis added). Again, for *Woodruff* to apply to this case, an overlap of ranges needs to be present before a need arises for Applicant to show criticality of the claimed range. Indeed, as the Examiner admits, such an overlap of ranges does not exist in this case. See Office Action, p. 7.

3. The Examiner acknowledges that while there is no explicit overlap of ranges between Dias and the instant claims, the instant specification discloses a polydecene concentration as low as 5%. *Id.*

The Examiner improperly compares the specification of Dias with the instant specification in alleging obviousness. The proper inquiry in determining obviousness requires the Examiner to ascertain the differences between the prior art and the claims in issue. *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). Therefore, this rejection is improper.

4. The Examiner further alleges that “a person of ordinary skill in the art would expect the claimed polydecene range to be miscible in any of the [] formulations taught by Dias.” Office Action, p. 8. Applicant respectfully disagrees with the Examiner.

A person of ordinary skill in the art would not expect polydecene ranging from 15% to 35% by weight to be miscible within the aqueous compositions taught by Dias. This difference in concentration ranges of polydecene reflects the fundamental difference between the invention in Dias, which is directed to a bleaching solution, and the present invention, which is directed to an anhydrous paste. Therefore, one of ordinary skill in the art reading Dias would not have been able to attain the parameters of the instant claims by routine experimentation.

Because Dias makes no more than a passing reference to pastes, it clearly does not contemplate the problems addressed by the present invention. In order to arrive at the presently claimed composition, a person of ordinary skill in the art would first need to choose to configure the ingredients in Dias in the form of a paste. A person of ordinary skill in the art, prior to the instant invention, would have opted to use mineral oil, combined with a suitable wax to formulate a bleaching paste. See e.g. Example 5 in Legrand. While this may resolve issues of miscibility, it would not address the unexpected beneficial properties of the claimed invention such as thermal stability and

lack of greasy or coarse feeling of hair. See Specification, p. 3, para. [014] - p. 4, para. [016]. The present inventors have found that, certain bleaching pastes, e.g. those formulated with mineral oil, may cause hair to feel greasy. See *id.* at p. 3, para. [010]. They have also found that such compositions are not thermally stable. See *id.* at para. [012]-[013]. Therefore, a person of ordinary skill in the art would need to conduct additional experiments with specific hydrocarbon oils and discover ranges which would solve these problems. Routine experimentation would not be able to lead one of ordinary skill in the art to arrive at the presently claimed invention.

5. As evinced by the Examples in the present specification, it is the choice of the claimed polydecenes, in contrast to other hydrocarbon oils or fatty esters, which yields the unexpected benefits of hair with a less greasy feel. Dias provides no suggestion for going through this exercise and no suggestion of the use of an anhydrous paste for bleaching human keratin fibers comprising a polydecene compound having at least 30 carbon atoms in a concentration of 15% to 35% by weight as recited in the rejected claims.

The Examiner repeats that Dias teaches a polydecene concentration of up to 3% by weight and that the instant specification discloses a concentration, at one point, as low as 5%. See Office Action, at 9. The Examiner again proceeds to invoke *Titanium Metals*, stating that "a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties." *Id.*

However, as set forth above, for a determination of obviousness, the disclosure of the prior art needs to be compared with the claims in issue, not the specification. See *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

One of ordinary skill in the art would not have been able to attain the composition of the instant claims in view of Dias as discussed above. Accordingly, as the Examiner has failed to establish a *prima facie* case of obviousness, Applicant respectfully request this rejection be withdrawn.

CONCLUSION


In view of the above arguments, Applicant respectfully requests reconsideration of the application and timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: June 5, 2008

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